

REMARKS***Election/Restrictions***

This confirms the election of claims 1 – 28 in accordance with the Election/Restriction requirement in the Office Action.

Specification

The disclosure was objected to because "0.09 inch" should be "0.009" inch for consistency. This has been corrected by amendment.

Claim Rejections – 35 U.S.C. §112

Claims 4, 6, 11, 12, 18, 21, 22, and 24 have been rejected under 35 U.S.C. 112, second paragraph, for indefiniteness. Each of these rejections have been addressed with an appropriate amendment, except for the rejection of claims 11 and 12, which is respectfully traversed.

The term "gas by volume" is believed to be definite. We have tried to think of a more definite way to put this, but anything else gets away from the standard way of specifying the relative amounts of two ingredients of a substance. For example, if one examines any liquor bottle, it will tell you the percentage of alcohol, and indicate whether this is in terms of volume or weight. Foam plastic is made of plastic and gas. It inherently has a certain percentage of gas and a certain percentage of plastic. If you designate one, you automatically designate the other, because the two percentages must add up to 100%. The percentage can be expressed in terms of weight percent or volume percent. That is, just stating a percentage of the material that is gas is not enough because 50% gas can mean 50% of the volume is gas, or can mean that 50% of the weight is gas. In claims 11 and 12, we have specified that the percentage is by volume. After thinking about what must be bothering the Examiner, we think it may be that the phrase requires a comma after the word "gas". Therefore, this amendment has been made. If the Examiner still believes this is indefinite, we respectfully request that he state in more detail just why it is indefinite so that it can be more easily seen what is required.

Claim Rejections – 35 U.S.C. §102

Claims 1 – 6, 8 – 10, 22 and 25 – 28 were rejected under 35 U.S.C. 102(b) as being

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anticipated by Sobolev. Claim 1 has been amended to add the limitation that the plastic is high-density polyethylene, which overcomes this rejection. Claims 2 – 6, 8 – 10, 22, and 25 – 28 depend on amended claim 1 and contain all its limitations and therefore are also patentable. In addition, at least the limitations of claims 3 (the specific 12 mm thickness), 8 (the specific thickness in steel plate), 10 (microballon filled plastic is not the same as foam plastic), and 22 (architectural panels are not the same as placing architectural details on a mold) have not been found in Sobolev; if these are not in Sobolev, these claims are patentable on their own.

Claim Rejections –35 U.S.C. §103

Claims 7, 11, and 12 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev. This rejection is respectfully traversed.

First of all, claims 7, 11, and 12 all depend on a patentable claim (see below), amended claim 1.

Further, with respect to claim 7, the thinnest metal thickness disclosed in Sobolev is 0.38 mm (column 9, line 59), and the patent states that preferably the metal is significantly thicker (column 9, lines 60 – 63). The Office Action cannot use Sobolev as a reference and ignore this teaching of Sobolev. A patent examiner must consider the whole of the teachings of the reference and not ignore the portion of a reference that teaches against the combination according to the invention. MPEP 2145 X.D.

The rejection of claims 11 and 12 would also apply to new claims 38 and 39, so this rejection shall also be specifically addressed. With respect to claims 11 and 12, Sobolev teaches that the maximum gas core density reduction that is practical is 30% and suggests that too much density reduction will result in loss of "important laminate properties" (column 22, lines 13 – 15.) A density reduction of 30% is essentially equivalent to a 30% gas volume, since the weight of gas is miniscule as compared to the weight of plastic. First of all, there is no prima facie case of obviousness, because the claimed 32% gas volume is outside the range disclosed in Sobolev. Secondly, the Office Action cannot utilize the Sobolev reference and ignore the teachings that blowing the plastic to produce foam was concluded to be less desirable. MPEP Ibid. In the Boesch case relied on by the Office

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Action, the claimed ranges were all within ranges taught in the prior art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215, 218 (CCPA 1980). In this case, the claimed ranges are outside the prior art, and the prior art sees the limitations as less desirable even within the range. Thus, the gas volume percentages of claims 11 and 12 are not obvious. Further, new claims 39 – 42 are patentable. In claim 39, the volume percentage of the gas has been placed at 32% to be sure it is well outside the range Sobolev. Since Sobolev teaches that, even with a volume percentage of gas under 30% foam plastic is undesirable for laminates, clearly the fact that the present disclosure teaches that volume percentages higher than this are very desirable is inventive.

Claims 13 – 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev in view of Fitzgerald et al. This rejection is respectfully traversed.

Claim 13 has been canceled and its limitation included in amended claim 1. In addition, amended claim 1 also includes the limitation that the metal of the facing is steel. Thus, the argument here shall be directed to the amended claim 1 including both limitations.

First of all, neither Sobolev nor Fitzgerald et al. teach the use of high-density polyethylene in a metal-plastic laminate, whether for concrete formworks or anything else. Not all materials, and not even all plastics, are suitable for forming laminations, because material that works fine on its own may have adhesion, expansion coefficients, and other properties that do not work for laminations. Thus, a key element of the invention is missing and, on this basis alone, a prima facie case of obviousness is not made. In addition, while steel is within the "range" of materials suggested by Sobolev, none of the examples in Sobolev utilize steel, and no reason that steel is particularly suitable for concrete forms is given in Sobolev. In fact, the only mention of concrete formwork in Sobolev is one line. There is no suggestion in either of the references or their combination that the particular lamination combination of steel and high-density polyethylene is useful for a concrete formwork. Thus, the particular combination claimed is not obvious, because there is no suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine teachings

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as claimed. MPEP 2142 and MPEP 2143 – 2143.03.

A Declaration Of Gregory D. Johnson is enclosed showing that the particular combination of steel facing and high-density polyethylene results in an unexpectedly good concrete formwork panel. For this reason also, the amended claim 1 is patentable. See Boesch, *supra* p. 219. See also MPEP 2144.05 III.

Claims 14 – 18 depend on a patentable claim and are therefore themselves patentable.

Claims 19 – 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev in view of Lee, claim 23 was rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev in view of Yoshida et al., and claims 23 and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev in view of Gallis et al. All these claims depend on a patentable claim, amended claim 1, and therefore are also patentable.

Conclusion

In view of the foregoing, claims 1 – 12, 14 – 28, and 39 – 42 are patentable, and their reconsideration and allowance are respectfully requested. No fee for this amendment is seen to be required. However, if any fee is required, please charge it to Deposit Account No. 50-1848.

Respectfully submitted,
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